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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/055,282	01/22/2002	Jonathan E. Roth	2001-0575	7539
76863	7590	04/24/2009		
KRAGULJAC & KALNAY 4700 ROCKSIDE ROAD SUMMIT ONE, SUITE 510 INDEPENDENCE, OH 44131				
EXAMINER RAMIREZ, JOHN FERNANDO				
ART UNIT		PAPER NUMBER		
3737				
NOTIFICATION DATE		DELIVERY MODE		
04/24/2009		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mary@kkpatent.com  
ptomail@kkpatent.com

### Office Action Summary

**Application No.**

10/055,282

**Applicant(s)**

ROTH ET AL.

**Examiner**

JOHN F. RAMIREZ

**Art Unit**

3737

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 January 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) 9-37 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 38-42 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Response to Arguments***

Applicant's arguments with respect to claims 1, 38, 40-42 have been considered but are moot in view of the new ground(s) of rejection.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1-8 and 38-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 00/69333 in view of non-patent literature de Boer Johannes of record.**

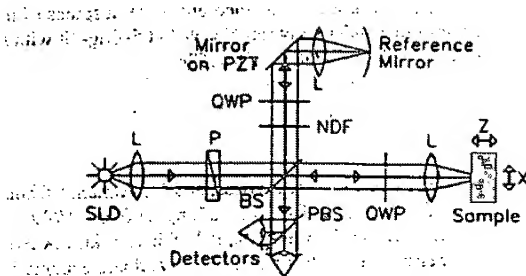


Fig. 1. Schematic of the PS-OCT system. SLD: superluminescent diode. L: Lens. P: Polarizer. BS: Beam splitter. QWP: Quarter-wave plate. NDF: Neutral density filter. PBS: Polarizing beam splitter. PZT: Piezoelectric transducer. 2-D images were formed by lateral movement of the sample at constant velocity ( $x$ -direction), repeated after each longitudinal displacement ( $z$ -direction).

The WO 00/69333 discloses an OCDR/OCT system having polarization sensitivity, comprising a reference arm providing a delay line for electromagnetic energy, a sample arm providing a path for incident electromagnetic energy having prescribed polarization characteristics to a sample, a detector arranged to detect electromagnetic energy from the delay line and from the sample, wherein the electromagnetic energy is light, a beamsplitter directing light from a source to the reference arm and to the sample arm and for combining light from the reference and sample arms to direct the combined light to the detector, wherein the sample arm includes a polarizer and a polarization adjusting device, wherein the polarizer comprises a linear polarizer and the polarization adjusting device comprises an adjustable

waveplate, wherein the reference arm is absent polarization adjusting components, further wherein the detector comprises a photosensitive detector, a lock-in device and a computer for analyzing signals detected by the detector, and further comprising a drive for determining the polarization states of incident electromagnetic energy directed to the sample and detected by the detector. (see Figures 2 and 3, pages 9 line 25 thru page 14 line 30). The WO 00/69333 reference appears not to disclose that the polarizer is in the sample arm and that the light remitted from the sample according to the series of polarization states is measured and comprises measuring birefringence.

However in the same field of endeavor, de Boer Johannes teaches the use of a PS-OCT interferometer system in Fig. 1 that illustrates the use of a polarizer in the sample arm of the system and the polarization state in each arm of the interferometer was computed. In the sample arm, the polarization changes were determined by the sample birefringence (see Abstract, sections II, and III).

Based on the above observations, for a person of ordinary skill in the art, modifying the device of the WO 00/69333 reference with a polarizer located in the sample arm of an PS-OCT system to calculate the polarization state changes determined by birefringence as taught by de Boer Johannes, would have been obvious in view of the conventionality of these enhancements.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOHN F. RAMIREZ whose telephone number is (571)272-8685. The examiner can normally be reached on (Mon-Fri) 7:00 - 3:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian L. Casler can be reached on (571) 272-4956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/BRIAN CASLER/  
Supervisory Patent Examiner, Art  
Unit 3737

/J. F. R./  
Examiner, Art Unit 3737